Atty. Docket No.: CA1468
PATENT APPLICATION

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 10/033,646

REMARKS

Claims 1-8 and 11-21 are all the claims pending in the application. The Examiner rejected claims 1-6, 11-17 and 19-21 under 35 U.S.C. 103(a) as being allegedly unpatentable over Wahl et al. (U.S. Patent No. 6,324,654) in view of Hubis et al. (U.S. Patent No. 6,182,198).

In response to Examiner's rejection, Applicant amends independent claims 1, 11, 14 and 21. The amended independent claims generally recite a feature of the invention wherein data from the first and second logical volumes are first copied to the third and fourth logical volumes, respectively, and then the third and fourth logical volumes are synchronized. This sequence of steps recited in the above claims is not taught or even suggested in any of the art cited by the Examiner.

Applicant respectfully draws the Examiner's attention to the fact that embodiments of the present invention recited in claims 1, 11, 14 and 21 provide capability for making multiple remote copies of information without the necessity of making a remote copy for each synchronized pair. To this end, the inventive concept recited in the above claims involves first making two local copies on two different storage systems and subsequently synchronizing the local copies.

On the other hand, the reference cited by the Examiner, Wahl et al., teaches exactly the prior art technique, wherein the mirror configuration shown in Fig. 5 of Wahl et al. is achieved by making two remote copies, which are performed independently. Applicant respectfully draws the Examiner's attention to col. 12, ln. 53-56 of Wahl et al., wherein Wahl et al. teaches that each

logical volume group is independently copied. Also in Fig. 5, Wahl et al. shows two independent links between devices of Logical Group 0 and Logical Group 1. Therefore, according to teachings of Wahl et al., the system first makes a remote copy for Logical Group 0 volume and then makes a remote copy for Logical Group 1 volume, exactly as in the prior art.

There is nothing in Wahl et al. or any other art cited by the Examiner that teaches the sequence of steps recited in the amended claims. While Wahl et al. does teach two synchronized pairs of volumes (Logical Groups 0 and 1 in Fig. 5), Wahl et al. is totally devoid of teaching the specific sequence of steps recited in claims 1, 11, 14 and 21. The second reference cited by the Examiner, Hubis et al., also lacks any such teaching.

In the event the Examiner continues to insist that Wahl et al. or Hubis et al. teach the specific sequence for creating mirror volumes, as recited in claims 1, 11, 14 and 21, Applicant respectfully requests the Examiner to point Applicant to the exact language of Wahl et al. or Hubis et al., which, in the Examiner's opinion, teaches the aforesaid sequence. "[W]hen the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference." In re Rijckaert, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (citing In re Yates, 663 F.2d 1054, 211 USPQ 1149, 1151 (CCPA 1981)).

Applicant also respectfully reminds the Examiner that in rejections under 35 U.S.C. 103(a), the Examiner may not rely on the doctrine of inherency. "That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown. Such a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an

obviousness rejection." In re Rijckaert, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (citation omitted).

Moreover, the portion of Hubis et al. relied upon by the Examiner is referred to by Hubis et al. as a flawed technique which should not be used, see Hubis et al., col. 1, ln. 34-45. Therefore, one of ordinary skill in the art would not be motivated by Hubis et al. to modify the system of Wahl et al. as the Examiner tries to suggest. References must be taken for their teaching as a whole - "the test is whether the combined teachings of the prior art, taken as a whole" suggest the modifications proposed by the Examiner to a person of ordinary skill in the relevant art. *In re Napier*, 55 F.3d 610, 34 USPQ2d 1782 (Fed. Cir. 1995); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966) (§103 requires consideration, inter alia, of differences between the prior art and the claimed invention taken as a whole). Absent such a showing or suggestion (to combine the references) in the prior art, the Examiner can do no more than piece the invention together using the prior art references and the Applicants' patent application as a template. Such hindsight reasoning is impermissible. *In re Zurko*, 111 F.3d 887, 42 USPQ2d 1476 (Fed. Cir. 1997); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988).

For all the foregoing reasons, amended independent claims 1, 11, 14 and 21 are patentable over the cited art. Applicant further respectfully submits that Examiner's rejection of claims 2-6, 8, 12, 13, 15-17, 19 and 20 is rendered mood by the present amendment and that these claims are patentable at least due to their dependence on the patentable independent claims 1, 11, 14 and/or 21.

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The Examiner rejected claims 7 and 18 under 35 U.S.C. 103(a) as being allegedly unpatentable over Wahl et al. (U.S. Patent No. 6,324,654) in view of Hubis et al. (U.S. Patent No. 6,182,198), as applied to claims 1 and 14 and further in view of Kamvysselis et al. (U.S. Patent No. 6,496,908). Applicant further respectfully submits that Examiner's rejection of claims 7 and 18 is rendered mood by the present amendment and that these claims are patentable at least due to their dependence on the patentable independent claims 1, 11, 14 and/or 21.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

Pavel Pogodin
Registration No. 48,205

SUGHRUE MION, PLLC
Telephone: (650) 625-8100
Facsimile: (650) 625-8110
MOUNTAIN VIEW OFFICE
23493
CUSTOMER NUMBER

Date: December 20, 2005

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this AMENDMENT UNDER 37 C.F.R. § 1.111 is being facsimile transmitted to the U.S. Patent and Trademark Office this 20th day of December, 2005.

Mariann Tam

